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### ABSTRACT

Identification of relevant individual and intervention variables whose interaction affects response to treatment can be used to facilitate favorable outcomes through appropriate client-treatment matching. To provide a preliminary appraisal of this interaction hypothesis by examining the relationship between client and treatment loci of control as a predictor of success in weight control programs, questionnaires were administered to 23 college student subjects during individual interviews in which their prior experiences in weight control programs (a prerequisite for participation) were also evaluated. The obtained information permitted classification of subjects and their prior weight control programs as being primarily either internally-oriented or externally-oriented. Analysis of weight loss data revealed a significant interaction between subject and treatment loci of control. The mean weight loss per week by the 11 subjects whose internality-externality orientation was similar to that of their treatment was 2.52 pounds, more than 2 1/2 times the 0.97 pounds per week lost by the 12 subjects whose orientation contrasted with that of their treatment. The findings suggest the potential ' value of efforts to identify relevant client and treatment characteristics that are useful for therapeutic prescription. (Author/JAC)

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RELATIONSHIP BETWEEN CLIENT AND TREATMENT LOCI OF CONTROL AS A PREDICTOR OF WEIGHT CONTROL SUCCESS: A PRELIMINARY APPRAISAL

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### INTRODUCTION

It is not uncommon with psychological interventions to find that a person who fails to profit from one approach subsequently benefits from another. Therapist differences notwithstanding, the prognosis for improvement may depend in part on the degree of accord vs. discord between client personality characteristics and salient features of the treatment. Identification of relevant individual and intervention variables whose interaction affects response to treatment could be used to facilitate favorable outcomes through appropriate client-treatment matching. For example, a variety of weight control programs are attempting to accommodate the increasing number of people prompted to lose weight by health and aesthetic concerns, but lacking are criteria to guide individuals in program selection.

Past research has provided rather contradictory results concerning the efficacy of locus of control as a variable predictive of progress in weight control (e.g., Cohen & Alpert, 1978; Gormally, Rardin, & Black, 1980; Rodin, Bray, Atkinson, Dahms, Greenway, Hamilton, & Molitch, 1977; Schreiber, Schauble, Epting, & Skovholt, 1979). At least two factors may have contributed to the inconsistent findings. First of all, previous studies have relied primarily upon a general locus of control measure (e.g., the Internal-External Scale, Rotter, 1966), making no provision for a measure relevant specifically to the treatment focus. It would seem

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that, instead of the traditional single locus of control measure, a locus "profile" incorporating both general and specific measures could be more applicable. Furthermore, the predictive value of such a profile might be enhanced further through inclusion of a scale appraising the client's ability to self-motivate.

The second possible weakness characterizing previous predictive research in this area is the failure to assess the internal/external orientation of the treatment intervention employed. The objective of increasing therapeutic efficacy through appropriate matching of clients to treatments would seem to require relevant assessment not only of the clients, but also of the treatments themselves. With regard to treatment locus of control, this would suggest appraisal of the degree of control allowed the client as opposed to that exerted by the program. The present study was designed to provide a preliminary appraisal of the above interaction hypothesis by examining the relationship between client and treatment loci of control as a predictor of success in weight control, programs.

# METHOD

Students in the introductory psychology course at the University of California, Santa Barbara, are required to participate in several research projects as part of a "subject pool." Those over 18 years old were invited to participate in this study if they had attempted a weight-loss program within the preceding two years and had been at least 10 pounds overweight at the time. This selection procedure produced a sample of 22

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females and 1 male, the latter not differing appreciably from the others on any relevant measures. The 23 subjects ranged in age from 18 to 26 with a mean of 19.0.

Subjects met individually with the first author in sessions lasting approximately one hour. At the outset, they were asked to complete several questionnaires including the Internal-External Scale (Rotter, 1966), the Self-Motivation Inventory (Dishman, Ickes, & Morgan, 1980), and a modified version of the Health Locus of Control Scale (Wallston, Wallston, Kaplan, & Maides, 1976), which was altered During the remainder of the session, 'a weight-specific concerns. semi-structured interview was conducted to acquire basic biographical data and information about the subject's most recent experience in a weight control program. Subject locus of control was categorized as being primarily either internally oriented or externally oriented based upon scores on the above three questionnaires. Treatment locus of control was determined from the interview information using an internality/externality scale designed to reflect the degree of control allowed the client as opposed to that exerted by the program.

## RESULTS

Mean weight loss per week was calculated for subjects within each of the four combinations of subject and treatment loci of control, as represented in the 2 X 2 factorial categorization illustrated in Table 1.

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TABLE 1

Mean Weight Loss Per Week for Individuals Categorized

According to Subject and Treatment Loci of Control.

	Subject Locus of Control		
· .	Internal	External	
Internal Treatment Locus	2.33	0.68	1.56
	$(\underline{n} = 8)$	$(\underline{n} = 7)$	$(\underline{n} = 15)$
of Control External	1.37	3.02	1.99
	$(\underline{n} = 5)$	$(\underline{n} = 3)$	$(\underline{n} = 8)$
., ,	1.96.	1.38	1.71
	$(\underline{n} = 13)$	$(\underline{n} = 10)$	$(\underline{N} = 23)$
	•		

The mean weight loss by the 11 subjects whose internality/externality orientations were similar to that of their treatments was 2.52 pounds per week, more than  $2\frac{1}{2}$  times the 0.97 pounds per week lost by the 12 subjects whose orientations contrasted with that of their treatments. An analysis of variance revealed, as expected, no significant main effect for either subject or treatment locus of control, but confirmed the apparent interaction between these two factors,  $\underline{F}(1,19) = 8.28$ , p < .009.

### DISCUSSION

Results of the present study suggest that matching client with treatment on locus of control orientation may facilitate progress in efforts at weight loss. Individuals with primarily an internal locus of control tended to be more successful in weight control programs allowing them considerable autonomy, whereas externally oriented individuals tended to fare better in programs providing salient external supports and incentives.

The present findings and their generality must be viewed.within the perspective of possible limitations associated with the nature and homogeneity of the population and target problem, the small sample size, the retrospective nature of the treatment data, and the fact that an experimenter served as the interviewer. Subsequent research with similar populations and other interviewers is in progress, and preliminary findings suggest the possible relevance of differentiating between self-management and formal treatment programs for predicting weight loss based upon matching with subject locus of control.

This research program, which thus far has focused primarily on weight control, suggests the potential value of efforts to identify relevant client and treatment characteristics that could be used for purposes of therapeutic prescription. Research efforts should be extended to other variables and target behaviors to ascertain further the worthiness of this pursuit.

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